
REMARKS

Claims 1-18 are pending in the present application. Claims 1-5, 7-11, and 13-17 were rejected in the Office Action dated 11/18/2004.

The Examiner did not reject claims 6, 12, and 18. Alternatively, the Examiner *did* reject claims 6, 12, and 18 but did not provide any basis for rejection nor did the Examiner provide relevant prior art references. In either case, the claims were not properly rejected, and we ask that any future rejection of claims 6, 12, and 18 not be a final rejection.

No claims are added by this response. No claims are canceled by this response. Three claims (claims 1, 7, and 13) are amended by this response.

Section 103 Rejections

In paragraph 2, the Examiner rejected claims 1-5, 7-11, and 13-17 under 35 USC 103(a) as being unpatentable over Martenas et al. (US 5,199,522 A) and in further view of Adamson et al. (US 4,341,277 A). The Examiner further stated it would have been obvious to have provided the top and/or front panels of Martenas et al. with the additional air combustion apertures of Adamson et al. in order to increase the amount of drawn in air for combustion and cooling.

Martenas teaches an air inlet for a vehicle engine, and particularly teaches feeding air to the engine without contacting the engine or going through the engine compartment, which keeps

combustion air cool and produces the advantage of increased engine performance. Martenas teaches the “air inlet of the engine compartment is preferably located forwardly of the radiator of the engine cooling system” (col. 2, ll. 28-30). Martenas teaches that the radiator is mounted in front of a fan assembly, which is mounted in front of an engine, and that the fan draws air from the radiator backward toward the engine. See column 3, lines 1-6: “Mounted forwardly of, and within, the engine compartment is a fuel tank assembly 9, immediately behind which is mounted a radiator 11 [...] and behind that is mounted a fan assembly 12 which draws air through the radiator 11. Behind the fan assembly 12 is mounted the engine 13”, also see FIG. 1. Thus, the advantage of Martenas of increased engine performance is a result of the fan pulling (ambient, unheated) air from the front of the radiator (backward) through the radiator toward the engine, combined with the location of the air inlet in front of the radiator, where it can pull ambient unheated air for use as combustion air – *before* it is pulled through the radiator and thereby heated.

Adamson teaches a “perforated hood with air scoop establishing an ambient air flow to be directed to the coolant heat exchanger of a vehicle” (see abstract). Further, Adamson teaches the advantage is obtained by thermally isolating the ambient air from the (hot) engine “for attaining a greater cooling efficiency of the heat exchanger” (see abstract). Adamson teaches that the fan pulls (ambient unheated) air from outside the vehicle through the inlets and toward the heat exchanger (in a forward direction, away from the engine). See column 4, lines 35-40: “the fan assembly 5 draws ambient air through the inlets 16, 17 and 18 to create an ambient air flow through air passage 60, as represented by arrows in FIG. 3. The air flow is directed through the heat exchanger 6 to cool the engine coolant in a conventional manner.” Further, Adamson

clearly states that the relative positions of the duct, air inlets and engine combined with the direction of flow of cooling air achieved by the fan, provide the advantage of cooling efficiency. See column 4, lines 47-53: "Through such an arrangement, the air flow is thermally isolated from the heat of the engine [...]for greater cooling efficiency". Thus the advantages cited by Adamson are the result of ambient unheated air moving (forward) away from the engine through a heat exchanger.

Martenas cannot be combined with Adamson. Martenas teaches that the advantage of greater engine efficiency is achieved with a fan located behind the radiator pulling air backward (toward the engine). Adamson teaches that the advantage of greater cooling efficiency is achieved with a fan located behind the heat exchanger pushing air forward (away from the engine). Thus Martenas teaches against Adamson. To change the fan direction and resultant air flow of Martenas to that taught by Adamson would result in poorer engine efficiency. To change the fan direction and resultant air flow of Adamson to that taught by Martenas would result in poorer cooling efficiency. Thus the combination of Martenas with Adamson would change the fundamental mode of operation, therefore they cannot be combined.

Claims 1, 7, and 13 have been amended by adding the clause "wherein the fan pulls air from the front of the radiator to the rear of the radiator". Support for this amendment is found in the specification, paragraph 29, as well as other places in the specification.

CONCLUSION

All the claims are believed to be in condition for allowance, the early notification of which is respectfully requested. If the Examiner believes that an interview would advance the allowance of the application he is cordially invited to contact the undersigned at the telephone or e-mail address identified below.

Applicants' undersigned attorney may be reached in our Germantown, Tennessee office by telephone at (901) 309-3068.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O.Box 1450, Alexandria, VA 22313-1450, on this 18th day of April, 2005.

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Signature